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CALIFORNIA STATE BOARD OF HEALTH

Weekly Bulletin

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EDITOR

IS THIS A YEAR OF EPIDEMICS?

By CHAS. H. HALLIDAY, M.D., Epidemiologist.

Crookshank says: "A few of those who sit in offices and peruse records, tables and other statistical paraphernalia are gifted with the scientific imagination that enables them to form a picture of all that is passing beneath the eyes of others who are at work in general practice, in the dispensaries and in the casualty departments of our vast metropolis. A forecast was made that the year 1918 would be a year of pestilence. Smallpox showed itself here and there. January showed typhoid, while there were many odd nuclear palsies and much facial paralysis. In February an epidemic of encephalitis was foretold, in May a short, sharp and fatal outbreak of pneumonia and a few spoke of pneumonic plague. Then came the Spanish flu.

"Dr. Rajchman, now directing the epidemiological work of the League of Nations, issued a warning, almost completely disregarded, of an autumnal return in force.

"Events of the later months of 1918 are well known; but this should be noted, not only the general but special hospitals saw far more than is usual of Landry's paralysis, of ascending and transverse myelitis."

In California is the year 1924 a year of epidemics? Smallpox exceeds all previous records. Diphtheria of an unusual fatal type shows an increase. Scarlet fever and German measles are epidemic in several parts of the state. Disregarding the two major epidemics in the southern part of the state, typhoid fever shows a substantial increase.

Encephalitis and poliomyelitis have been reported throughout the year. Many undiagnosed conditions are known to exist. Cases showing sudden onset with temperature, vomiting, diarrhea or constipation, stiff neck, muscular soreness and tenderness and general weakness, brings to mind the possibility of the systemic form of poliomyelitis—or is it influenza?

Will the small epidemic of poliomyelitis of last year repeat itself in force this year? It is no less true now than when Darwin said that, "without hypothesis there is no useful observation."

* * *

Rule For Examination Of Water Supplies.

The California State Board of Health, at its meeting of June 14th, passed the following resolution pertaining to the laboratory examination of water supplies:

WHEREAS, The Board finds itself unable to comply longer with the requests for the analysis of water samples submitted by private individuals; therefore be it

Resolved, That the Bureau of Sanitary Engineering be instructed to so notify those requesting that service and, in future, samples of water of private individuals shall be analyzed by the Bureau only in cases of actual illness attributable to water-borne infection and when samples are properly collected by a representative of the Board or a health officer and at the discretion of the Bureau, express charges to be borne by the individual, as heretofore.

Faulty Sewers Near Waterworks Prohibited.

Two extensive outbreaks of typhoid fever due, largely, to the close proximity of faulty sewers to waterworks and water supplies, have prompted the California State Board of Health to regulate such conditions. Following is the text of a resolution in the matter adopted by the California State Board of Health at its meeting held in Sacramento, June 14, 1924.

Resolution for the Protection of Waterworks and Water Supplies Against Pollution, When in Proximity to Sewers.

Adopted by the
California State Board of Health,
June 14, 1924.

Whereas, During recent months there have occurred two serious outbreaks of water-borne typhoid fever in California, traced to the following causes:

(1) Drains from waterworks connected with sewers, which allowed sewage to back up into the waterworks and into a water supply well, the sewer itself being subject to overcrowding and to flow under pressure.

(2) Low pressure steel water pipes which were corroded and perforated, and allowed leakage through the soil from a nearby broken sewer in which the sewage had backed up to a level higher than the water pipe.

and,

Whereas, Scattered investigation elsewhere has revealed to the Board the likelihood of the existence of conditions equally favorable to the pollution of public water supplies in other places and has revealed that low pressure pipe lines installed extensively a decade ago are now apt to be in a bad state of corrosion; therefore be it

Resolved, That the Board disapprove of the location and use of clay or cement sewers or drains carrying human sewage in close proximity to waterworks, and hence in range of travel of underground pollution to sumps, pits, low pressure water pipes, steel cased wells, or reservoirs whether lined or unlined; and also disapprove the failure of individuals or of public authorities to construct and maintain sewers adequate to carry away at all times and in all seasons all the sewage without causing it to back up in the sewers; and also disapprove of the practice of making drain connections between waterworks and appurtenant structures and sewers whereby, in case of backing up of sewage, such waterworks structures may become contaminated; and also disapprove of the use of steel casing for water supply wells and low pressure water pipe lines when installed within range of the travel of underground pollution from existing or prospective sources of pollution (for the purpose of this resolution, low pressure water pipes are those in which the minimum static or operating water heads within the pipe are less than the depth of the pipe below the ground surface); and also disapprove of the practice of perforating the upper part of water well casings or of using dug wells within a built-up community or within reach of the travel of underground sewage pollution; and disapprove also of the use of untreated or undisinfected water supplies, from sources whose sanitary surroundings are subject to suspicion, and be it further

Resolved, That the Board record itself as favoring and as requiring as part of the condition of permit under the Public Health Act, that sewers be constructed of cast iron with lead joints where the sewage may pollute water supplies and that sewers shall be adequate in size and capacity and so maintained as to prevent the sewage backing up in them, and be it further

Resolved, That the Board record itself as favoring and as requiring as part of the conditions of permit under the Sanitary Water System Act, that cast iron pipe with lead joints be used for low pressure water lines as herein defined when the same are or may be subject to the travel of underground pollution, and that drains from waterworks to sewers shall not contaminate the water supply if and when sewage flows or backs up in said drains; and also requires the continuous and adequate disinfection of all water supplies whose sanitary surroundings are subject to suspicion, and be it further

Resolved, That those officials and governing boards, upon whom the duty to act is cast, be urged to frequently and carefully investigate by field and laboratory methods the conditions of the sewer systems and water supply systems within their charge, and to cause to be remedied any and all conditions whereby human sewage may contaminate domestic water supplies or menace health in any way.

Note.—The distance of travel of pollution underground is considered to depend on the degree of filtration afforded by the intervening soil media. Bearing in mind that even fine grained soils may become channeled by gopher holes, holes left by decayed roots, etc., and that soils and rocks are subject to fissuring and shearing, that a ground water plane extending upward into the zone of pollution diffuses pollution, and bearing in mind that the relation of water and sewage levels is usually fluctuating, the Board feels that in no case should a sewer subject to leakage and, conversely, a water pipe or well subject to entrance of underground pollution, be located within 150 feet of each other, and under conditions of gravelly soil, steeper slope or widespread fissuring, this distance would be of necessity be greatly extended.

The resolution does not exhaust the chances for contamination of public or private water supplies, a few of which are: the more or less temporary use of emergency supplies in time of shortage; habitations, camps, construction crews, railroads, ice cutters, fishermen, picknickers, etc., upon surface water catchment areas; thaw-carried pollution in higher altitudes; short-circuiting of reservoirs; reversal of flow of lowland streams having sewer outlets below intakes; connection with polluted emergency supplies or with polluted private supplies; seepage into and flooding around leaky wells, reservoirs or sumps; defective and cracked pumps and well casings, and casing not extended in impervious manner above level of drainage water either in the sump or surrounding ground; defective covers over wells; use of privies or cesspools near wells; inadequate capacity or kind of water treatment, lack of duplicate installation

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or parts, and inadequate regulation of water treatment; exhaustion of supply of waterworks chemicals; use of bypasses. Workmen laying or repairing distribution systems, or workmen upon tunnel and waterworks construction may pollute water supplies.

Epidemics have been due to all of these causes.

Self-purification of water and the filtering efficiency of soils are real and important phenomena, but weighing their value in particular instances is best left to those expert in sanitation and sanitary engineering.

Be Sure You Drink Pure Water.

Radio Health Talk No. 10.

Greater precaution against typhoid fever is necessary this summer because of the fact that this is a dry year in most of the western states. When the streams are full of water there is less chance of contracting typhoid fever because any contamination that may enter becomes greatly diluted in the larger volume of water. When the streams are low and contamination enters they become exceedingly dangerous for they hold concentrated solutions of pollution, the drinking of which is very likely to cause serious illness.

The camper or hiker, this summer, who drinks from a wayside stream, not knowing whether it carries pure water or disease producing liquids, is taking a tremendous chance. The warning against drinking water from promiscuous sources during the present season, especially, can not be stated too emphatically nor repeated too often. If you want to be sure that you do not contract typhoid fever or other intestinal diseases, be sure of the purity of the water that you drink. Instructions for disinfecting small water supplies with iodine, broadcasted in an earlier radio health talk, can be secured by writing to the California State Board of Health at Sacramento.

This warning applies not only to individuals who are camping and hiking but it also applies to many of the smaller communities the regular public water supply of which have become reduced in quantity or entirely exhausted. The use of emergency water supplies, without first determining their quality and safety is inexcusable and should the use of unsafe supplies result in the contraction of illness, those responsible may be legally liable for the damages caused by such illness. Many owners of public water supplies, boards of city trustees and supervisors, as well as other officials have heavy responsibilities and problems this year in providing pure water for public use. The general public has equally great responsibilities in using every safeguard against the pollution of streams and assisting in the conservation of the stored supplies. Most of the larger cities have sufficient supplies in storage to meet the ordinary demands of the season and they have ample facilities for delivering water of unquestioned purity. Many of the smaller cities are not so fortunate, however, and they must use extreme precaution in securing full protection of their supplies, making sure of the purity of any emergency supply, before attempting to use it.

This warning is not intended to frighten anyone but it is issued for the purpose of informing the public that there is great danger in the rural districts this summer of contracting typhoid fever and extreme care should be used in making certain that the water one drinks is of unquestioned purity.

Emergency Water Supplies Must Be Pure.

The following resolution concerning the use of emergency water supplies was adopted by the California State Board of Health at its meeting held in Sacramento, June 14th.

Whereas, The summer season of 1924 threatens to be accompanied by the partial or complete exhaustion of the customary sources of public and private water supplies and individuals and committees will be prompted to develop new and emergency sources of water supply of unknown quality and safety; therefore be it

Resolved, That the attention of the public and of officials and governing boards upon whom the duty to act is cast be called to the need and urgency of ascertaining beyond doubt the safety of the sanitary surroundings of such supplies, and to the need and urgency of completely and effectively disinfecting all supplies whose safety is or may be in doubt.

Immunization of Willits Children Completed.

Immunization of 126 school children of Willits against diphtheria was completed June 10th. The final dose of toxin antitoxin was also administered to twenty-five children of preschool age and to five adults. The city of Willits paid for the materials used and Doctors Babcock, Bennett and Sherry of Willits, gave their services. A committee of women assisted the Mendocino County nurse, Miss L. Trewick, in planning and conducting the immunization program.

MORBIDITY.*

Diphtheria.

198 cases of diphtheria have been reported, as follows: Los Angeles 74, Los Angeles County 22, Sacramento 15, Oakland 16, Daly City 5, Stockton 9, Albany 1, Sonoma County 1, Santa Clara County 5, Antioch 2, Morgan Hill 1, Ventura 4, Burbank 1, Fowler 1, San Rafael 1, Sacramento County 1, Long Beach 3, Berkeley 4, Santa Ana 2, Orange County 1, Ontario 1, Ukiah 1, Hayward 2, Oceanside 2, Stanislaus County 2, Modesto 1, Santa Barbara 1, Merced County 1, Pasadena 1, San Jose 1, Plumas County 1, Contra Costa County 1, Richmond 1, Alhambra 2, South Gate 2, Pittsburg 1, Los Gatos 1, Livermore 2, Compton 1, El Segundo 1, Watsonville 1, Redondo 1, Hawthorne 1.

Measles.

221 cases of measles have been reported, as follows: Los Angeles 70, Los Angeles County 33, Oakland 26, Sacramento 13, Pasadena 12, Berkeley 5, Redondo 5, Long Beach 5, Kern County 1, San Bernardino 2, Corona 7, Trinity County 2, Tehama County 1, Fresno County 2, Glendale 3, Fullerton 1, San Leandro 1, San Jose 1, Orange County 1, Santa Barbara 4, Modoc County 1, Hawthorne 1, Paso Robles 4, Whittier 3, Alhambra 2, Santa Monica 2, San Joaquin County 1, Stockton 4, Lodi 1, Huntington Park 1, Hermosa 2, Monrovia 4.

Scarlet Fever.

93 cases of scarlet fever have been reported, as follows: Los Angeles 27, Los Angeles County 10, Oakland 10, Orange County 8, Kern County 2, Santa Clara 1, Merced County 3, Fullerton 1, San Leandro 1, Coronado 1, Claremont 2, Fresno County 1, El Centro 1, Fresno 1, Napa 3, Burbank 1, Riverside 1, Pomona 2, Watsonville 1, Alhambra 1, Bakersfield 1, Visalia 1, Tulare County 1, Santa Monica 1, Santa Barbara 1, Redlands 1, Chico 1, San Joaquin County 2, Stockton 3, Lodi 1, Sacramento 2.

Smallpox.

122 cases of smallpox have been reported, as follows: Los Angeles 36, Long Beach 12, Los Angeles County 39, Ontario 9, San Bernardino 4, Orange County 2, Hermosa 1, Pomona 1, Fresno County 4, Huntington Park 4, Fullerton 1, Glendale 2, Oxnard 1, Sacramento County 3, Selma 3.

Typhoid Fever.

23 cases of typhoid fever have been reported, as follows: Los Angeles County 5, Los Angeles 2, Imperial 1, Crescent City 1, Stockton 1, El Centro 4, Contra Costa County 2, Eureka 1, Madera County 2, Benicia 1, Kern County 1, California 2.

Whooping Cough.

56 cases of whooping cough have been reported, as follows: Los Angeles 12, Plumas County 10, Los Angeles County 8, Stockton 8, Oakland 1, Modoc County 2, Santa Barbara 3, Riverside 2, Long Beach 2, Fullerton 3, Sacramento 2, Pasadena 2, San Mateo 1.

Cerebrospinal Meningitis.

Santa Barbara reported 1 case of cerebrospinal meningitis.

Epidemic Encephalitis.

3 cases of epidemic encephalitis have been reported, as follows: San Mateo 1, Hayward 1, San Joaquin County 1.

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*From reports received on June 30th and July 1st for week ending June 28th.

COMMUNICABLE DISEASE REPORTS.

DISEASES	1924				1923			
	Week ending			Reports for week ending June 28 received by July 1	Week ending			Reports for week ending June 30 received by July 3
	June 7	June 14	June 21		June 9	June 16	June 23	
Anthrax	0	0	0	0	0	0	0	0
Cerebrospinal Meningitis	5	1	1	1	2	4	1	4
Chickenpox	274	339	180	160	218	188	128	73
Diphtheria	224	241	256	198	124	171	132	134
Dysentery (Bacillary)	7	1	1	5	4	5	0	0
Epidemic Encephalitis	4	2	2	3	2	2	6	1
Epidemic Jaundice	0	0	0	0	0	0	0	0
Gonorrhoea	131	107	82	58	85	137	124	78
Influenza	17	7	7	1	20	15	22	4
Leprosy	1	0	1	1	2	1	0	1
Malaria	11	4	4	2	2	2	2	3
Measles	662	500	356	221	1138	1139	830	501
Mumps	57	71	53	27	32	25	14	12
Pneumonia	103	37	37	28	78	82	39	36
Poliomyelitis	1	2	0	0	0	2	1	2
Rocky Mt. Spotted Fever	0	0	0	0	0	0	0	0
Scarlet Fever	168	111	134	93	154	146	134	74
Smallpox	185	146	133	122	32	27	22	11
Syphilis	157	183	81	85	67	156	126	100
Tuberculosis	205	202	202	150	172	158	131	144
Typhoid Fever	27	19	32	23	25	13	16	18
Typhus Fever	0	0	0	0	0	0	0	0
Whooping Cough	45	57	45	56	148	165	80	52
Totals	2284	2030	1607	1234	2305	2438	1808	1248

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